**Final Report – Team 12**

**Description of System functionality**

**Overview**

The objective of the Bibliography software is to help Program Committee Chairs and Associate Editors identify candidates for conference and journal committees. The application provides the user with a list of authors which they can search based on the topics of research papers, number of research papers published previously, conferences they were part of, etc.

**Search**

Once the user logs in, the main search page opens where the user can search based on the publication title.

The advanced search option allows the user to search by the following options:

1. Position held before (as a General chair/Program chair/Conference chair or External review committee member)
2. Using a conference acronym (ECOOP, OOPSLA, PLDI, ASE etc.)
3. Using a conference name
4. By the author’s name
5. By the year of the publication

Searching any of the above leads the user to a results page which displays the number of authors retrieved for whichever search is being applied.

**Search results**

The search results page shows a list of authors. The user can filter and/or sort the list being obtained. The user can also go to an author details page from the search results.

**Author details**

Double clicking on any author from the search results takes the user to an Author details page. From this page the user can view the author’s alias, homepage URL, the conference name he/she was a part of and a previous position held with the year.

The page also displays a list of all the research papers by the said author.

**Filter**

Once the search results are obtained, the user can filter these results based on the following criteria:

1. Author name
2. Number of research papers
3. Past experience in years

**Sort**

The results obtained can be sorted by clicking on top of each field. The user can sort, in ascending or descending order by the author name, past experience in years or the number of research papers the author has published previously.

**My Program Committee**

The user can select and add authors to a selected committee from the search results. The user can see the authors they selected so far.

**Login /Logout**

Clicking on the logout button from any page logs the user out of the system and take them back to the login page.

**Find similar authors**

From the author details page the user can click on the view similar authors button. A search results page with authors like the searched author pops up. The criteria for looking up similar authors is displaying authors who have participated in the same conference as the author being looked up.

If the author has never been a part of a conference, the view similar authors button is disabled.

**Changes since phase 3**

**1. UI redesign**

We added a login page to the system UI. The colors and UI style were also changed. A message with the number of search results and the search being performed was added in the search results page. The buttons, search bars and filter text were restructured.

**Details page**

We restructured the details page to go back to the search results. Also the buttons were re-positioned to provide a more user-friendly experience.

**2. My program committee**

A feature to select authors from the search results was added to have a list of committee members the user can later look up.

From the search results page, the user can select the authors they would like to add to their committee.

On the My program committee page, the user can delete any authors they would like to remove. The user can also add a note to describe the committee selected by them.

**3. Login/Logout**

A login and logout functionality was added, the login page allows the user to enter their username and password to use the application. The logout button is present on every page for the user to go back to the login screen.

**4. Find similar authors**

The functionality to find authors similar to a given author was added. The similarity criteria is an author who has participated in the same conference as the author being looked up.

**5. Code re-structuring**

The application code was revised and cleaned for this phase. Unwanted comments were removed, as were unused entities and functions. Code coverage was ensured for all application components and test suites were updated to include all components.

**Design patterns**

The following design patterns were used in our application:

* **Singleton**
* **Factory**
* **Data Access Object**

The singleton pattern was used in the Query Engine and Parser components of the application.

Factory pattern was used in the test objects and when the query engine is used to access the database.

We also used the data access object pattern to access the database using the objects.